

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claim 1-22 are presently active in this case. The present Amendment amends Claim 1 and adds Claims 2-22.

In the outstanding Office Action, the abstract and drawings were objected to because of informalities. Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by Kaufmann et al. (U.S. Patent No. 4,984,247).

In response to the objections to the Abstract, the Abstract of the Disclosure is rewritten to correct the noted informalities. In light of their formal nature, the changes to the Abstract do not raise a question of new matter.

In response to the objection to the drawings, submitted herewith is a Letter Submitting Drawing Sheets along with 5 Replacement Sheets for Figs. 1-10 adding the appropriate legends and labels.

Claim 1 is amended in order to clarify Applicant's invention and to better comply with U.S. claim drafting practice. In light of their formal nature, the changes to Claim 1 are not believed to raise a question of new matter.

In order to vary the scope of protection recited in the claims, new Claims 2-22 are added. New Claims 2-22 find support in the disclosure as originally filed. Specifically, Claims 2 and 18, find non-limiting support at page 11, lines 12-13, Claims 3, 4, 5, 13, and 14 at page 9, lines 15-18; Claims 6, 7, 8, and 9 at page 11, lines 15-18; Claims 10, 11, 20 and 21 at page 9, lines 19-23 and corresponding Fig. 10; Claims 12 and 15 at page 9, line 24-page 10, line 7 and corresponding Fig. 10; Claim 15 at page 9, lines 25-31; Claim 16 at page 9, lines 26-27; Claim 17 at page 9, lines 29-30; Claim 19 at page 10, line 2; and Claims 22 at

page 9, line 25. Therefore, new Claims 2-22 are not believed to raise a question of new matter.¹

In response to the rejection of Claim 1 under 35 U.S.C. § 102, Applicant respectfully requests reconsideration of this rejection and traverses the rejection as discussed next.

Briefly recapitulating, Applicant's invention as recited in Claim 1 relates to a receiver intended to receive signals, corresponding for example to spread spectrum information symbol streams by pseudorandom binary sequences. This receiver includes processing channels, at least one of which includes a filter adapted to one of the pseudorandom binary sequences having been used for information symbols spectrum spreading and a recovery circuit configured to produce a clock signal. The other channels each include a sliding correlator working with one of the other pseudorandom binary sequences having been used for information symbols spectrum spreading. Each sliding correlator is controlled by the clock signal produced by the recovery circuit of the channel including the adapted filter. As explained in Applicant's specification at page 8, lines 18-26, the receiver of Claim 1 improves upon conventional devices because it combines the advantages of the adapter filter and sliding correlator by using an adapter filter in at least one channel, this in order to restore rapidly and efficiently the symbol clocks signal, and by using sliding correlators in the other channels so as to benefit from their low level of complexity.

Turning now to the applied prior art, the Kaufmann et al. patent discloses a digital radio transmission system having the basic structure of a receiver of the correlation type. However, the Kaufmann et al. patent fails to teach that at least one of its channels includes a filter adapted to one of the pseudorandom sequences. Indeed, the Kaufmann et al. patent explicitly points out that DS-SSS receiver may be roughly divided into two categories, the

¹ See MPEP 2163.06 stating that "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter."

matched filter type and the correlation type receiver.² The Kaufmann et al. patent further states that "The present invention serves to provide a DS-SSS system which can be realized in practice, having the basic structure of a receiver of correlation type."³ Moreover, Applicant respectfully submits that in the passage highlighted in the outstanding Office Action, no reference to the claimed adapted filter can be found. On the contrary, Kaufmann et al.'s Fig. 8 is a block circuit diagram of a correlation receiver.⁴ In this Figure, boxes 15-1 to 15-N represent the N correlators (despreader) used to obtain the control signal required for the acquisition (coarse synchronization).⁵ Therefore, the Kaufmann et al. patent teaches a receiver having the basic structure of a receiver of correlation type which correspond to the prior art described in the Applicant's specification. Accordingly, Applicant respectfully traverses, and requests reconsideration of this rejection based on this patent.⁶

New dependent Claim 2 recites a receiver according to Claim 1 wherein the adapted filter is digital. The coefficients of the digital filter are adapted to one of the pseudorandom binary sequences. The Kaufmann et al. receiver does not include these features in combination with the other features recited in Claim 1.

New independent Claim 12 recites a receiver for receiving signals including a first and a second channel. The first channel is configured to process a first signal and to recover a clock signal from this first signal. The second channel is configured to process a second signal. This second channel is controlled by the clock signal recovered by the first channel. In addition, the second channel is free of any clock signal recovery circuit. The Kaufmann et al. patent fails to teach or suggest such features. Indeed, the Kaufmann et al. patent recites a

² See Kaufmann et al., column 1, line 59 - column 2, line 1.

³ See Kaufmann et al., column 2, lines 51-53.

⁴ See Kaufmann et al., column 8 lines 65-66.

⁵ See Kaufmann et al., column 9 lines 46-54.

⁶ See MPEP 2142 stating, as one of the three "basic criteria [that] must be met" in order to establish a *prima facie* case of obviousness, that "the prior art reference (or references when combined) must teach or suggest all the claim limitations," (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

receiver comprising N despreaders (or correlators). The signal at the output of the N despreaders is transmitted to an envelope or square law detector and the results are used for obtaining the control signals required for acquisition and tracking in the circuit.⁷ Therefore, the Kaufmann et al. patent does not teach a first channel which is configured to process a signal of the received signals and to recover a clock signal *from this processed signal* since it uses the N desreader output to produce the control signals.

New Claims 3-11 and 13-22 recite other features not taught or suggested by the prior art. Accordingly, the new claims are believed to patentably distinct over the prior art.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-22 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicant's undersigned representative at the below listed telephone number.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Attorney of Record
Registration No. 25,599
Philippe J. C. Signore, Ph.D.
Registration No. 43,922



22850

Tel. (703) 413-3000
Fax (703) 413-2220
GJM/PJCS/pm

I:\ATTY\PJCS\0902.PJCS\199649US\199649US.AM.doc

⁷ See Kaufmann et al., column 9 lines 46-54 and corresponding figure 8.